1507/112.

A COMPENDIUM OF LOGIC.

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The Second Edition, Enlarged.

LONDON:
Printed in the Year M.DCC.LVI.

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A
COMPENDIUM of LOGIC.

BOOK I.

CHAP. I.

Of SIMPLE TERMS.

SECT. I.

THE Operations of the Mind are three, 1. *Simple Apprehenſion*, 2. *Judgment*, 3. *Diſcourſe*.

1. *Simple Apprehenſion* is, The bare conceiving a Thing in the Mind.

2. *Judgment* is, The Mind's determining in itſelf, that the Things it conceives agree or diſagree.

3. *Diſcourſe* is, The Progreſs of the Mind from one Judgment to another.

But our Apprehenſion is apt to be *indiſtinct*, our Judgment *falſe*, our Diſcourſe *inconcluſive*. To prevent this, wiſe Men preſcribed ſeveral Rules, which were at length collected into one Body; and termed *Logic*, or The Art of Reaſoning.

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SECT. II.

But we cannot expreſs to another, what paſſes in our own Mind, any otherwiſe than by *Words:* It is therefore *by teaching us the proper Uſe of Words*, that *Logic* aſſiſts the Mind, 1. To apprehend *diſtinctly*, 2. To judge *truly*, 3. To diſcourſe *concluſively*.

A Word, that expreſſes *ſimple Apprehenſion*, is called a *ſimple Word*; one, that expreſſes *Judgment*, a *complex*, or *compounded Word*; one, that expreſſes *Diſcourſe*, a *decomplex*, or *twice compounded one:* For every Argument is reſolvable into *three Propoſitions* or *Sentences*; and every Propoſition contains *three Words* (in Senſe, if not in Number), 1. The *Subject*, or that of which ſomething elſe is ſaid, 2. The *Predicate*, or that which is ſaid, and 3. The *Copulative*, that ſtands between the Subject and Predicate, which are therefore called the *Terms* of the Propoſition.

SECT. III.

The firſt Part of Logic treats of *ſimple Terms*, that is, of ſuch Words as may *by themſelves* be the Subject or Predicate of a Propoſition. Of theſe there are ſeveral Diviſions; as,

1. A *ſingular* Word, which expreſſes one Thing only, as *Socrates:* A *common*, which expreſſes many and each of them, as, a *Man*.

2. An *infinite* Word, to which the Particle *not* is prefixt, as, *not-a-Man*, which may imply any Thing beſides: A *finite*, to which that Particle is not prefixt.

3. A *poſitive* Word, which expreſſes a Thing as preſent: A *privative*, which expreſſes its Abſence from a Subject capable of it: A *negative*, which expreſſes its Abſence from a Subject not capable of it. So, *ſeeing*, ſpoken of *a Man*, is a *poſitive* Word; *blind*, ſpoken of *a Man*, is a *privative*; ſpoken of a *Stone*, a *negative* Word.

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4. An *univocal* Word, whoſe one Signification equally agrees to ſeveral Things, as *a Man:* An *equivocal*, whoſe different Significations agree equally, as *a Foot:* An *analogous*, whoſe one Signification agrees unequally, as *Knowledge*, applied to GOD and Man.

5. An *abſolute* Word, which expreſſes a Thing conſidered as by itſelf, as *Juſtice:* A *connotative*, which expreſſes the ſame Thing as joined to another, as *juſt*.

An *abſolute* Word, expreſſing a Thing as ſeparate from its Subject, is alſo called *an abſtract*, as *Juſtice:* And a *connotative*, expreſſing it as joined to a Subject, a *concrete* Word, as *juſt*.

Thoſe *connotative* Words, which imply each other, are termed *Relatives*, as *a Father* and *a Son*.

6. *Conſiſtent* Words, which may at the ſame Time be affirmed of the ſame Thing, as *cold* and *dry:* *Oppoſite*, which cannot, as *black* and *white*.

The *Oppoſition* of ſimple Terms is fourfold; 1. *Relative*, between *relative* Terms, as *a Father* and *a Son:* 2. *Contrary*, between *contrary* Terms, that is, *abſolute* Words, which expel one another from a Subject capable of either, as *black* and *white:* 3. *Privative*, between a *privative* and a *poſitive* Word, as *ſeeing* and *blind:* 4. *Contradictory*, between a *poſitive* and a *negative* Word, as a *Man* and *not-a-Man*. This is the greateſt of all Oppoſitions, as admitting of no *Medium*; neither a *Medium of Participation*, ſuch as is *grey*, between *black* and *white*; nor a *Medium of Abnegation*, ſuch as is *a Stone*, between *ſeeing* and *blind*. *Relative* Oppoſition (on the other Hand) is the leaſt of all; for relative Terms are not Oppoſites, unleſs they are conſidered with reſpect to the ſame Thing.

SECT. IV.

An *univocal* Word is otherwiſe called a *predicable*, or a Word capable of being *predicated*, that is, ſpoken in the ſame Senſe of ſeveral Things.

There are five Sorts of *predicable* Words, 1. A *Genus*, which is predicated of ſeveral Things as the common Part of their Eſſence, as an *Animal*. 2. A *Difference*, which is predicated of ſeveral Things as the diſtinguiſhing Part of their Eſſence, as *rational*. 3. A *Species*, which is predicated of ſeveral Things as their whole Eſſence, as *a Man*. 4. A *Property*, which is predicated of ſeveral Things as neceſſarily joined to their Eſſence, as *riſible*. 5. An *Accident*, which is predicated of ſeveral Things as accidentally joined to their Eſſence, as *tall*, *ſhort*.

SECT. V.

A *Genus* is either *the higheſt*, or a *ſubaltern:* A *Species* is either a *ſubaltern*, or the *loweſt*. The *higheſt Genus* is that which never is a *Species*; the *loweſt Species*, that which never is a *Genus:* A *ſubaltern Genus* or *Species*, is a Genus when predicated of a *lower Species*, as *Every Man is an Animal*; a Species when ſubjected to an *higher Genus*, as *Every Animal is a Subſtance*.

Wherefore, a *Difference* is either *generical*, which, added to the *Genus*, conſtitutes a *ſubaltern Species*, as *ſenſible:* Or *ſpecific*, which conſtitutes the *loweſt Species*, as *rational*.

A *Property* likewiſe is either *generical*, which is neceſſarily joined to the Eſſence of an *higheſt* or *ſubaltern Genus*, as *moveable:* Or *ſpecific*, which is joined to that of a loweſt Species, as *riſible*.

But a Property is vulgarly ſaid to be fourfold. 1. Such as belongs to one Species only, but not to every Individual of it; as *To be a Grammarian.* 2. Such as belongs to every Individual of a Species, but not of that Species only, as *To have two Feet.* 3. Such as belongs to one Species and every Individual, but not always, as *To turn Grey-hair'd.* 4. Such as belongs to every Individual of one Species only, and that always, as *Riſibilty.* It is ſuch a Property as this, which conſtitutes the *fourth* Predicable.

SECT. VI.

To *divide* a common Word is, To enumerate its ſeveral Significations. So he is ſaid to *divide* the Word *Animal*, who ſays, It ſignifies either *a Man* or *a Brute.*

Diviſion is therefore, A diſtinct Enumeration of the ſeveral Things which are ſignified by a common Word.

The Rules of Diviſion are three:

1. Let the Members of the Diviſion, ſeverally contain *leſs* (be of a narrower Signification) than the Word divided: 2. Let them conjointly contain *neither more nor leſs* than the Divided: 3. Let them be *oppoſite*, i. e. not contained in each other.

SECT. VII.

Definition follows Diviſion: It is, a Sentence explaining the Word defined: And is either *nominal*, which tells the Derivation of the Word; or *real*, which explains the Nature of the Thing. Again, a real Definition is either *accidental*, which aſſigns the Properties or Accidents of the Defined; or *eſſential*, which aſſigns thoſe Parts that conſtitute the Eſſence of it. Laſtly, An eſſential Definition is either *logical*, which aſſigns the Genus and Difference; or *phyſical*, which aſſigns the really diſtinct Parts of its Eſſence, for the Genus and Difference are only diſtinguiſhed by the Underſtanding.

For Example. *Homo* is defined *nominally, qui ex humo*; *accidentally*, a two-legg'd unfeather'd Animal; *logically*, a rational Animal; *phyſically*, a Being conſiſting of an organized Body and a reaſonable Soul.

The Rules of Definition are three: 1. Let the Definition be *adequate* to the Defined: 2. Let it be *clearer* and *plainer* than the Defined: 3. Let it be contained in a *fit Number* of *proper* (not *figurative)* Words.

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CHAP. II.

Of PROPOSITIONS.

SECT. I.

THE Second Part of Logic treats of *Propoſitions*, which is Judgment expreſſed in Words.

A regular Propoſition is, An affirmative or negative Sentence, ſignifying either true or falſe: Not ambiguous; for then it would be Sentences: Nor maimed; for then it would have no Signification.

It is either *categorical*, which pronounces a Thing abſolutely, as *Plato is happy:* Or *hypothetical*, which pronounces conditionally, as *If he is wiſe, then he is happy*.

Again, a Propoſition is either *affirmative* or *negative*; and is either *true* or *falſe*. This is called the *Quality* of it.

Laſtly, it is either *univerſal*, as *All Men are Animals:* Or, *particular*, as *Some Men are learned.* This is called the *Quantity* of it.

SECT.

SECT. II.

A is put for an univerſal affirmative Propoſition, E for an univerſal negative, I for a particular affirmative, O for a particular negative.

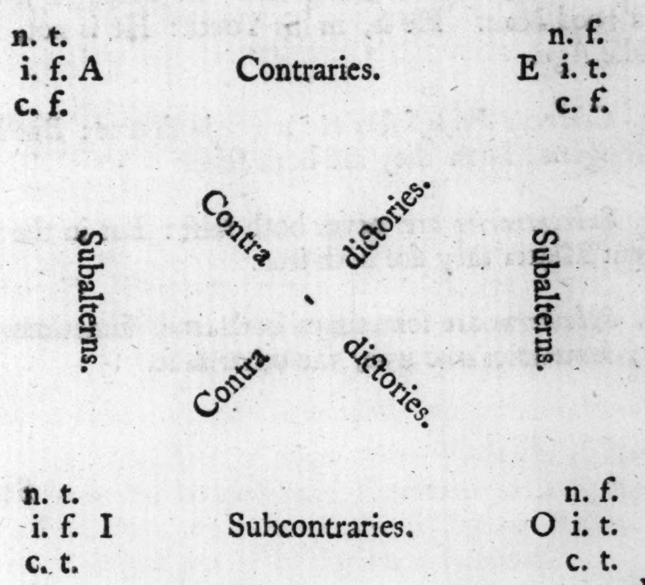
In an univerſal Affirmative, the Subject only is *diſtributed*, (i. e. taken in its full Senſe): In a particular Negative only the Predicate: In a particular Affirmative, neither Term is diſtributed: In an univerſal Negative, both.

The *Matter* of a Propoſition (i. e. the Manner wherein the Terms cohere) is either, 1. *Neceſſary*, when they eſſentially agree; or 2. *Impoſſible*, when they eſſentially differ; or 3. *Contingent*, when they agree or differ accidentally.

SECT. III.

Thoſe Propoſitions are ſaid to be *oppoſed*, which having the ſame Subjects and Predicates, yet differ either in Quantity, or in Quality, or both.

The whole Doctrine of Oppoſition is contained in this Scheme:



Here A. E. I. O. are four Propoſitions, marked according to their Quantity and Quality, which are t. f. true or falſe, as the Matter of the Propoſition is n. i. c. neceſſary, impoſſible, or contingent. Hence it is eaſy, 1. To enumerate the Species of Oppoſition, which are *contradictory*, *contrary*, *ſubcontrary* and *ſubaltern*. 2. To define each. For Example. Contradictory Oppoſition, is that which is between two categorical Propoſitions, differing both in Quantity and Quality, *&c.* 3. To lay down the Rules of Oppoſites, as follow:

1. *Contradictory Propoſitions* are never both true, or both falſe; but always one true, the other falſe.

But obſerve, Four Things are required to make a Contradiction, namely, to ſpeak of the ſame Thing, 1. In the ſame Senſe: 2. In the ſame Reſpect: 3. With Regard to the ſame third Thing: And, 4. At the ſame Time. If any of theſe Conditions be wanting, *is* and *is not* may agree. For Inſtance. 1. An Opinion *is* and *is not* Faith. It is *dead* Faith; it is not *living* Faith. 2. Zoilus *is* and *is not* red-haired. He is, with Reſpect to his Head: He is not, with Reſpect to his Beard. 3. Socrates *is* and *is not* long-hair'd. He is, in Compariſon of Scipio: He is not, in Compariſon of Xenophon. 4. Solomon *is* and *is not* a good Man. He is, in his Youth: He is not, in his middle Age.

2. *Contrary Propoſitions* are never both true: But in the Contingent Matter they are both falſe.

3. *Subcontraries* are never both falſe: But in the Contingent Matter they are both true.

4. *Subalterns* are ſometimes both true, ſometimes both falſe; ſometimes one true, the other falſe.

SECT. IV.

A Propoſition is ſaid to be *converted*, when its Terms are tranſpoſed. This is done either, 1. *Simply*, when neither the Quantity nor Quality; Or, 2. *Accidentally*, when the Quantity is changed.

An univerſal Negative, or a particular Affirmative may be ſimply converted, and the Inference will hold. An univerſal Affirmative muſt be converted accidentally, or the Inference will not hold.

CHAP. III.

Of SYLLOGISMS.

SECT. I.

THE Third Part of Logic treats of *Syllogiſm*, which is a Diſcourſe expreſſed in Propoſitions.

A Syllogiſm is commonly defined, A Sentence in which ſomething being premiſed, ſomething elſe neceſſarily follows from it.

A *categorical Syllogiſm*, conſiſts of three categorical Propoſitions: The two former of which are termed, the *Antecedent*; the third, the *Conſequent*; which before it is proved is called a *Problem* or *Queſtion*, afterwards a *Concluſion*.

We muſt make Uſe of ſome *third Term*, in order to find, whether the Subject and Predicate of a Queſtion agree: And that, becauſe of the following Rules, on which the whole Force of Syllogiſm is founded.

1. Thoſe Terms which agree with one and the ſame Third, agree with one another.

2. Thoſe Terms, one of which agrees, the other diſagrees with one and the ſame Third, differ from one another.

3. Thoſe which do not agree with one and the ſame Third, do not agree with one another.

SECT. II.

From theſe general Principles, the particular Rules of Syllogiſm are thus deduced.

1. In every Syllogiſm, there are three, and only three Terms: Two in the Concluſion: And theſe can neither be proved to agree nor to differ, without one and only one third Term.

The Predicate of the Queſtion is ſtiled the *major Term*; the Subject, the *minor*; the third Term, the *Medium* or *middle Term*. For the Predicate is commonly more comprehenſive than the Medium, as the Medium is than the Minor.

2. In every Syllogiſm, there are three, and only three Propoſitions: Two *Premiſſes*, in which the Medium is compared with the two other Terms ſeverally (the *major Propoſition*, in which it is compared with the major Term; the *minor Propoſition*, in which it is compared with the minor Term); and the *Concluſion*, in which both thoſe Terms ſtand together.

3. An *equivocal* Medium proves Nothing. For this is not one and the ſame Third.

4. An *undiſtributed* Medium is equivocal. Therefore

5. The Medium muſt be diſtributed in one of the Premiſſes.

6. The Proceſs from a Term not diſtributed in the Premiſs, to the ſame diſtributed in the Concluſion is irregular.

7. Negative Premiſſes prove Nothing: For in this Caſe a third is brought, from which both the Terms differ.

8. If either of the Premiſſes is negative, ſo is alſo the Concluſion.

9. And, if the Concluſion be negative, ſo is alſo one of the Premiſſes.

10. Particular Premiſſes prove Nothing.

11. If either of the Premiſſes be particular, ſo is alſo the Concluſion.

Sect. III.

It remains to enquire, how many Ways three categorical Propoſitions can be joined together, ſo as to compoſe a regular Syllogiſm. In which Enquiry, two Things are to be conſidered.

1. The *Mood*, or the Variation of the Propoſitions according to their Quantity and Quality:

2. The *Figure*, or the Manner of comparing the Medium, with the Terms of the Concluſion.

There are ſixty four Moods. For the Major of a Syllogiſm may be either A. E. I. or O. To each of theſe a fourfold Minor may be annext, whence ariſe ſixteen Pair of Premiſſes. And to each of theſe ſixteen, a fourfold Concluſion may be ſubjoined, thus,

AAA. AAE. AAI. AAO: AEA. AEE. AEI. AEO:
AIA. AIE. AII. AIO: AOA. AOE. AOI. AOO.
EAA. EAE. EAI. EAO: EEA. EEE. EEI. EEO.
EIA. EIE. EII. EIO: EOA. EOE. EOI. EOO.
IAA. IAE. IAI. IAO: IEA. IEE. IEI. IEO:
IIA. IIE. III. IIO: IOA. IOE. IOI. IOO.
OAA. OAE. OAI. OAO: OEA. OEE. OEI. OEO.
OIA. OIE. OII. OIO: OOA. OOE. OOI. OOO.

But ſixteen of theſe are excluded by the ſeventh Rule, becauſe their Premiſſes are negative, viz. EEA. EEE. EEI. EEO: EOA. EOE. EOI. EOO: OEA. OEE. OEI. OEO: OOA. OOE. OOI. OOO: Twelve by the tenth Rule, becauſe their Premiſſes are particular, viz. IIA. IIE. III. IIO: IOA. IOE. IOI. IOO: OIA. OIE. OII. OIO: Twelve by the eighth Rule, becauſe one of the Premiſſes is negative and not the Concluſion; AEA. AEI: AOA. AOI: EAA. EAI: EIA. EII: IEA. IEI: OAA. OAI: Eight by the eleventh Rule, becauſe one of the Premiſſes is particular, and not the Concluſion; AIA. AIE: AOE: EIE: IAA. IAE: IEE: OAE: Laſtly, Four by the ninth Rule, becauſe the Concluſion is negative, but neither of the Premiſſes; AAE. AAO. AIO: IAO.

Therefore fifty two Moods are excluded, many of which offend againſt ſeveral Rules. There remain twelve, which only are uſeful in Syllogiſm; AAA. AAI: AEE. AEO: AII: AOO: EAE. EAO: EIO: IAI: IEO: OAO.

SECT. IV.

The *Figures* of Syllogiſm are four: For the Medium is either ſubjected to the major, and predicated of the minor Term, which is the firſt Figure; or predicated of both, which is the ſecond; or ſubjected to both, which is the third; or predicated of the major, and ſubjected to the minor, which is the fourth; as appears in the following Scheme, wherein A is the Major Term, B the Medium, C the Minor:

1 Fig.	2 Fig.	3 Fig.	4 Fig.
B. A.	A. B.	B. A.	A. B.
C. B.	C. B.	B. C.	B. C.
C. A.	C. A.	C. A.	C. A.

Wherefore of the twelve remaining Moods, each Figure excludes ſix: Namely,

1. Becauſe of the undiſtributed Medium, the firſt, two, IAI: OAO: The ſecond, four, AAA. AAI: AII: IAI: The fourth, two, AII: AOO.

2. Becauſe of the irregular Proceſs of the major Term, the firſt Figure excludes four Moods, AEE. AEO: AOO: IEO: The ſecond, two, IEO: OAO: The third, four, AEE. AEO: AOO: IEO: The fourth, two, IEO: OAO.

3. Becauſe of the irregular Proceſs of the minor Term, the third, two, AAA: EAE: The fourth, two, AAA. EAE.

There remain *twenty four* concluſive Moods, *ſix* in each Figure.

The First Figure.

bAr Every wicked Man is miſerable;
bA Every Tyrant is a wicked Man; Therefore
rA Every Tyrant is miſerable.

cE No diſcontented Man is a happy Man;
lA Every wicked Man is diſcontented; Therefore
rEnt No wicked Man is a happy Man.

dA All the Faithful are dear to God;
rI Some, that are afflicted, are faithful; Therefore
I Some, that are afflicted, are dear to God.

fE No Virtue is an Evil;
rI Some difficult Things are Virtues; Therefore
O Some difficult Things are not Evils.

A Every wicked Man is miſerable;
A All Tyrants are wicked Men; Therefore
I Some Tyrants are miſerable.

E No diſcontented Man is a happy Man;
A Every wicked Man is diſcontented; Therefore
O Some wicked Men are not happy Men.

The SECOND FIGURE.

cEs No happy Man is diſcontented;
A Every wicked Man is diſcontented; Therefore
rE No wicked Man is a happy Man.

cAm Every wicked Man is diſcontented;
Es No happy Man is diſcontented; Therefore
trEs No happy Man is a wicked Man.

fEs No Evil is a Virtue;
tI Some difficult Things are Virtues; Therefore
nO Some difficult Things are not Evils.

bAr Every good Man is afflicted;
Ok Some rich Men are not afflicted; Therefore
O Some rich Men are not good Men.

E No happy Man is diſcontented;
A Every wicked Man is diſcontented; Therefore
O Some wicked Men are not happy Men.

A Every wicked Man is diſcontented;
E No happy Men are diſcontented; Therefore
O Some happy Men are not wicked Men.

The Third Figure.

dAr All the Faithful are dear to God;
Ap All the Faithful are afflicted; Therefore
tI Some, that are afflicted, are dear to God.

dIs Some Faithful are afflicted;
Am All the Faithful are dear to God; Therefore
Is Some, that are dear to God, are afflicted.

dAt All the Faithful are dear to God;
Is Some of the Faithful are afflicted; Therefore
I Some, that are afflicted, are dear to God.

fEl No Virtue is an Evil;
Ap All Virtues are difficult; Therefore
tOn Some difficult Things are not Evils.

bOk Some Chriſtians are not true Believers;
Ar All Chriſtians profeſs Faith; Therefore
dO Some, who profeſs Faith, are not true Believers.

fEr No Virtue is an Evil;
Is Some Virtues are difficult; Therefore
On Some difficult Things are not Evils.

The Fourth Figure.

brAm Every Tyrant is a wicked Man;
An Every wicked Man is miſerable; Therefore
tIp Some, that are miſerable, are Tyrants.

cAm Every wicked Man is diſcontented;
En No diſcontented Man is a happy Man; Therefore
Es No happy Man is a wicked Man.

dIm Some afflicted are faithful;
Ar All the Faithful are dear to God; Therefore
Is Some, that are beloved of God, are afflicted.

fEs No Evil is a Virtue;
Ap All Virtues are difficult; Therefore
O Some difficult Things are not Evils.

frEs No Evil is a Virtue;
Is Some Virtues are difficult; Therefore
On Some difficult Things are not Evils.

A Every wicked Man is diſcontented;
E No diſcontented Man is a happy Man; Therefore
O Some happy Men are not wicked Men.

SECT. V.

The four firſt of theſe Moods need nothing to make the Force of the Inference evident, but what is expreſſed in the Premiſſes. Whereas all the reſt do. Theſe therefore are ſtiled *perfect*, thoſe *imperfect* Moods.

An *imperfect* Mood is ſaid to be *reduced*, when it is changed into a *perfect one:* In order to ſhew evidently, either that the Concluſion is ſo, which is termed *oſtenſive Reduction:* Or, that it cannot be otherwiſe, which is called *Reduction ad impoſſibile.*

The Method of Reducing is taught by the Names of the Moods: In which the Vowels are the Propoſitions marked with their Quantity and Quality: The initial Conſonants, B. C. D. F. ſhew to what Mood in the firſt Figure the Reduction is to be made: S. P. ſhew that the Propoſition which the preceding Vowel ſtands for, is to be converted, either *ſimply* or *per accidens:* M, that the Premiſſes are to be tranſpoſed: K, that the Reduction is to be *ad impoſſibile*; *i. e.* that for the Premiſs to whoſe Sign it adheres, the Contradictory of the Concluſion is to be placed: Which being done, you will have in the firſt Figure, a Concluſion, either the ſame with that Premiſs, or one convertible into it, or its Contradictory. Thus,

1. cEs No happy Man is diſcontented;
Ar Every wicked Man is diſcontented; Therefore
E No wicked Man is an happy Man.

Reduce this to

cE No diſcontented Man is a happy Man;
lA Every wicked Man is diſcontented; Therefore
rEnt No wicked Man is a happy Man.

2. dIs Some good Men are Papiſts;
Am Every good Man is ſaved; Therefore
Is Some that are ſaved are Papiſts.

Reduce this to

dA Every good Man is ſaved;
rI Some Papiſts are good Men; Therefore
I Some Papiſts are ſaved.

3. bAr Every good Man is afflicted;
Ok Some rich Men are not afflicted; Therefore
O Some rich Men are not good Men.

Reduce this to

bAr Every good Man is afflicted;
bAr Every rich Man is a good Man——
A

The manifeſt Falſhood of which proves as manifeſtly the Truth of its Contradictory.

Sect. VI.

From what has been ſaid, it is evident, that there can be no more Moods than theſe twenty four. They are therefore miſtaken, who having tranſpoſed the Premiſſes, or converted the Concluſion of a Syllogiſm, imagine they have found out a new Mood or Figure: To convince them of which, you need only refer to the Definition of a Mood, a Mood, a Figure, of a major, a minor, a middle Term, and of a major and minor Propoſition.

But there are ſome Sorts of Arguments, which, though not ſtrictly regular, yet need not be wholly rejected. Such are,

1. An *Enthymeme*, one Premiſs of which is wanting, whether the Major or Minor, the Concluſion ſhews. As, *He is a good Man: Therefore he is happy.*

Sometimes the whole Argument lies in one Sentence: As, *Being mortal, do not bear immortal Hatred.*

2. An *Induction*, in which what is granted of ſeveral Particulars, is then affirmed univerſally: As, *This and this and that Loadſtone attracts Iron: Therefore, Every Loadſtone does.* It is thereſore a Sort of Enthymeme; a Syllogiſm in Barbara, whoſe Minor is underſtood.

3. An *Example*, wherein what is granted of a known Inſtance, is preſumed of an unknown that reſembles it: As, Sylla *and* Marius *tore the Common-wealth: Therefore ſo will* Cæſar *and* Pompey. Here alſo the Minor is underſtood. Therefore the Concluſion is only preſumed, not proved.

4. A *Sorites*, in whoſe Antecedent every preceding Term is ſubjected to the following, 'till you come from the Subject of the Concluſion to the Predicate of it: As, *Every Man is an Animal; Every Animal is a living Creature; Every living Creature is a Subſtance: Therefore, Every Man is a Subſtance.* In a *Sorites* as many Syllogiſms are underſtood, as there are intermediate Propoſitions.

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CHAP. IV.

Of HYPOTHETICAL SYLLOGISMS.

SECT. I.

THAT is a *hypothetical Syllogiſm*, in which one or more of the Propoſitions are hypothetical. The moſt common (of which alone we now ſpeak) is that, whoſe major Propoſition is hypothetical.

A hypothetical Propoſition is either *conditional*; as, *If he is wiſe, he is happy:* Or, *disjunctive*; as, *Either it is Day or Night.*

In a *conditional* Propoſition, the *Condition* itſelf is called the *Antecedent*; the Aſſertion, the *Conſequent*; the Connexion between them, the *Conſequence*.

The Rules of conditional Propoſitions are three:

1. If the Antecedent be granted, ſo is the Conſequent.

2. If the Conſequent be taken away, ſo is the Antecedent.

3. Nothing can be inferred, either from the taking away the Antecedent, or granting the Conſequent.

There are therefore only two Terms of conditional Syllogiſm:

The *conſtructive*; as,

If CD, then KΔ: But CD: Therefore KΔ.

And the *deſtructive*; as,

If CD, then KΔ: But not KΔ: Therefore not CD.

SECT. II.

Every conditional Syllogiſm is either equivalent to a categorical, or wholly to be rejected. For in every concluſive Conditional, there is a Categorical implied, in which the ſame Argument would prove the ſame Concluſion.

For in all hypothetical Syllogiſms, the major Propoſition conſiſting of two Categoricals, the Minor is either one of theſe, or the Contradictory to it, in order to infer, either the other, or its Contradictory. In either Caſe an Enthymeme will be propoſed, whoſe Force lies in the conditional Propoſition, and which is not concluſive, unleſs from that Propoſition there can be drawn a *Completory*, that is, the Premiſs which is wanting in an Enthymeme, to complete the Syllogiſm.

Now, as an Enthymeme is only one Premiſs with the Coucluſion of a Syllogiſm, it has three and only three Terms. Suppoſe two of them are D and Δ, and C the third Term. The other Premiſs, whoſe Terms are D and Δ, is wanting. Hence it follows, that according to the various Diſpoſition of the Terms, there are four Forms of Enthymeme: Each of which will admit of a twofold Completory, as in this Scheme.

The Enthymeme.		The Completory	D. Δ.	Δ. D.
CD.	therefore CΔ.	The Major	in Fig. I.	in Fig. II.
DC.			in Fig. III.	in Fig. IV.
CD.	therefore ΔC.	The Minor	in Fig. IV.	in Fig. II.
DC.			in Fig. III.	in Fig. I.

Wherefore as there are twenty four poſſible Moods of categorical Syllogiſm, and fourteen unexceptionable ones; and as each Figure may be applied twice, to compleat an Enthymeme; there will be forty eight poſſible Ways of compleating it, twenty eight unexceptionable. And as many Ways as an Enthymeme may be compleated, ſo many and no more, a Man may argue with a Syllogiſm, whoſe Major is conditional.

SECT. III.

The Directions given for *conditional* Propoſitions, ſerve equally for *disjunctive*. For any Disjunctive is eaſily turned into a Conditional. For Inſtance, if it runs thus,

It is either Day, or Night.
But it is Day: Therefore it is not Night.
But it is Night: Therefore it is not Day.
It is not Day: Therefore it is Night.
It is not Night: Therefore it is Day.

Inſtead of this, it is eaſy to ſay,

If it is Day, then it is not Night.
If it is Night, then it is not Day.
If it is not Day, then it is Night.
If it is not Night, then it is Day.

SECT. IV.

There remains only a Kind of redundant hypothetical Syllogiſm called a *Dilemma*, which propoſes two (or more) Things to your Choice, by accepting either of which, you loſe the Cauſe. Such is that of *Bias: If you marry a beautiful Woman, ſhe will be* κοινὴ; *if an ugly one,* ποινή. *Therefore marry none.*

A Dilemma is of no Force, unleſs, 1. One or the other Part muſt be accepted; 2. Either one or the other prove the Point; and, 3. It cannot be retorted. If *Bias* had obſerved theſe Things. he would have been leſs pleaſed with his own; for it fails in every Particular. For, 1. A Wife may neither be *beautiful* nor *ugly*. Therefore neither Part of the Dilemma need be accepted. 2. Neither is every beautiful Woman *common*, nor every ugly one a *Plague*. Therefore neither Part of it proves the Point. 3. It may be retorted, thus: If I marry the *one*, at leaſt ſhe will *not* be common; if the *other*, ſhe will *not* be a Plague.

A Dilemma is only a kind of negative Induction, in which the major Propoſition is conditional: As, *If at all, then thus, or thus, or thus.* To turn this into a categorical Syllogiſm, is ſo eaſy, it needs no Direction.

A
COMPENDIUM of LOGIC.

BOOK II.

CHAP. I.

Of SYLLOGISM, as to its Matter.

SECT. I.

HITHERTO we have ſpoken of Syllogiſm as to its *Form.* It remains, to ſpeak of it, as to its *Matter*; that is, the *Certainty* and *Evidence* of the Propoſitions, whereof it is compoſed.

That is a *certain* Propoſition, againſt which Nothing occurs, or Nothing of Weight, as, *Man is riſible:* That an *evident* one, which extorts the Aſſent, as ſoon as it is underſtood, as, *The whole is greater than its Part:* That a *doubtful* one, in which we know not how to determine, as, *The Stars influence Men.*

If any Thing occurs, whereby the Mind inclines to either Side, that which was doubtful before, becomes *probable.* Such an Aſſent is termed *Opinion.*

Opinion therefore reſpects a barely probable Propoſition, and implies no Certainty at all. Yet there are ſeveral Degrees whereby it approaches toward Certainty; and the higheſt Degree of Probability is not far diſtant from it.

SECT. II.

Certainty is twofold: 1. That of the *Object*, the Thing to be perceived; and 2. That of the *Subject*, the Underſtanding which perceives it. And both have their Degrees. That is more certain, in the former Senſe, to which there *is* the leaſt Objection; that, in the latter Senſe, to which the leaſt Objection *appears*. Evidence alſo is either of the *Object* or of the *Subject*. And both of theſe have their Degrees: According as that which is perceived, *is* more or leſs Self-evident; or *appears* to be one or the other.

We might enumerate many Degrees of *Evidence*. But it may ſuffice to obſerve, it is either, 1. That of a Self-evident Axiom; or, 2. That of a Concluſion regularly deduced therefrom. This Logicians term *Science*, which accordingly they define, An Aſſent to a certain and evident Concluſion, regularly deduced from certain and evident Premiſſes. The Certainty and Evidence here ſuppoſed, is that, both of the Object, and of the Subject: For by the former, Science is diſtinguiſhed from *Error*; by the latter, from *Opinion*. Without the Evidence of the Subject, there can be no *Science*; and this without the other, is but imaginary Evidence.

SECT. III.

We need not *prove*, that there is ſuch a Thing as Certainty; ſeeing all reaſonable Men allow it. We freely aſſent to what is affirmed by a wiſe and good Man: And more freely, if he confirms it by Reaſon. Some Things we are taught by Nature itſelf: And ſome by Divine Revelation.

velation. And of all theſe we have ſufficient Certainty, altho' in various Degrees.

To aſſent to Teſtimony is the ſame as to *believe:* And ſuch an Aſſent is termed *Faith*. *Divine* Faith depends on the Teſtimony of God: *Human* Faith, on the Teſtimony of Man. What Nature dictates, we may be ſaid to *perceive*; what Reaſon teaches us, to *know*.

God can neither deceive nor be deceived: Men are often deceived, and often deceive. Reaſon and Nature are not often deceived, and ſeldom deceive their Followers. Nothing therefore is more firm than *divine* Faith; Nothing leſs ſo than *human*. In what we *perceive* or *know*, there is often no *Fear*, always ſome *Danger* of being deceived. Hence there is the higheſt Reſt for the Mind in *divine* Faith; the loweſt of all in *human*. In what we *know* or *perceive*, there are various Degrees of Reſt, according to the various Evidence, Certainty, or Probability.

If therefore we were to make a Sort of *Scale of Aſſent*, it might conſiſt of the following Steps: 1. *Human Faith*, an Aſſent to a doubtful Propoſition: 2. *Opinion*, to a probable: 3. What we may term *Sentiment*, an Aſſent to a certain Propoſition: 4. *Science*, to a certain and evident Concluſion: 5. *Intelligence*, to a Self-evident Axiom: 6. *Divine Faith*, to a Divine Revelation.

Sect. IV.

To each of theſe there belong certain Principles, which are peculiarly proper to produce it. The *Principles* of *Divine Faith* are thoſe, and thoſe only, which are contained in the Scriptures: Of *Intelligence*, thoſe which are properly termed Axioms: Of *Science*, the Concluſions regularly deduced from them.

An *Axiom* is, a Propoſition which needs not, and cannot be proved. Such the following ſeem to be.

From *Natural Divinity*. 1. GOD cannot deceive or be deceived. Whence flow theſe certain and evident Concluſions: 2. Abſolute Faith is due to the Teſtimony of GOD: 3. Revelation never contradicts either Senſe or Reaſon. It may indeed *tranſcend* both. But it cannot poſſibly *contradict* either, rightly employed about its proper Object.

From *Mathematicks*. The Whole is greater than each of its Parts; equal to them all. But Mathematicians frequently lay down as ſuch, what are not Axioms, properly ſpeaking.

From *Metaphyſicks*. It is impoſſible for the ſame Thing, at the ſame Time, to be, and not to be. Some affirm this to be the only Axiom in the World: A Point not worth the Diſputing.

From *Logic*. Terms which agree in one and the ſame Third, agree with one another.

SECT. V.

Many believe, that there are no Axioms to be found in the other Arts and Sciences. But ſuch Principles at leaſt are found therein, as produce *Sentiment*, if not Science. Such are theſe. Nothing (naturally) ſprings from Nothing. Nothing is the Cauſe of itſelf. What you would not have another do to you, you ought not to do to another.

The Principles that ſerve to produce *Opinion*, are uſually ſtiled Maxims. They commonly hold, but not always. To this Claſs thoſe properly belong, which are, as it were in the middle Way, between doubtful and certain.

The Uncertainty of human Faith ariſes hence. In order to produce a firm Aſſent of this Kind, a competent Witneſs muſt know what he ſays, and ſay what he knows, and both be apparent to him that believes it. But this is rarely the Caſe. Wherefore we have always Reaſon to ſuſpect what we have no other Proof of, than human Teſtimony. Even when there appears no more Reaſon to doubt thereof, than of a mathematical Demonſtration.

Sect. VI.

According to theſe five Degrees of Aſſent, Syllogiſm might have been divided, with regard to its Matter, into infallible, ſcientifical, certain, probable and doubtful. But as the two firſt of theſe produce *Science*, and any Aſſent ſhort of this, is looſely ſpeaking, termed *Opinion*; it is uſually divided only into two Sorts: 1. That which produces *Science*; and this is ſtiled *ſcientifical*, otherwiſe *demonſtrative*, and often *Demonſtration:* 2. That which produces *Opinion* (any Aſſent ſhort of Science) and is termed *dialectical*; i. e. arguing probably.

There are two Species or *Demonſtration*. The firſt demonſtrates, *That a Thing is*; proving, either directly, That it is ſo; (and this is called *direct Demonſtration*;) or that if it be not, ſome Abſurdity will neceſſarily follow. This is uſually called *Demonſtratio ab abſurdo*. We may properly term it *oblique*.

We demonſtrate directly, either, 1. By proving a Thing from its *Effect*; as, *The Sun is black: Therefore it is eclipſed*. Or, 2. By proving it from its *remote Cauſe*; as, *The Moon is diametrically oppoſite to the Sun: Therefore it is eclipſed*. But if we prove this, from the Earth's being interpoſed between them, this is

The ſecond Sort of Demonſtration, which demonſtrates *Why a Thing is*, by aſſigning its *proximate* and *immediate* Cauſe.

But there may be a proximate, which is not the *prime* Cauſe, that is ſelf-evident and indemonſtrable, whoſe Evidence is therefore preferred before all other, as needing no Light, but from itſelf.

There are then four Degrees of Demonſtration, The *oblique* Demonſtration is good: But the *direct* is preferable to it. Demonſtration by the *proximate Cauſe* is better ſtill; but the *prime Cauſe*, beſt of all.

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CHAP. II.

Of FALLACIES.

THERE is yet another Species, or Shadow rather, of Syllogiſm, which is called a *Fallacy*. It is, An Argument intended to deceive. Such is,

1. The Fallacy of *Equivocation*, ariſing either from an equivocal Word, or from the ambiguous Structure of the Sentence. As, All that *believe* ſhall be ſaved. The Devils *believe*. Therefore the Devils ſhall be ſaved. This offends againſt the very firſt Rule of Syllogiſm. For it has four Terms.

2. The Fallacy of *Compoſition*, where what is granted of ſeveral Things ſeparately, is inferred of them conjointly. As, *Two and three* are even and odd. Five is *two and three*. Therefore, five is even and odd.

3. The Fallacy of *Diviſion*, when what is granted of Things taken conjointly, is inferred of them, taken ſeparately. As, *The Planets* are ſeven: The Sun and Moon are *Planets:* Therefore, the Sun and Moon are ſeven. In both theſe Syllogiſms there are four Terms.

4. The Fallacy of the *Accident*; when ſome accidental Circumſtance is confounded with what is eſſential: As, What *deſtroys Men* ought to be prohibited. Wine *deſtroys Men*.

Men. Therefore Wine ought to be prohibited. The major Propoſition muſt mean, What *neceſſarily deſtroys Men:* Otherwiſe it is not true: The minor, Wine *acidentally deſtroys Men.* Therefore here alſo there are four Terms.

5. The Fallacy of arguing from a *Particular* to a *General:* As, He that is *white as to his Teeth* is white. A Blackamoor is *white as to his Teeth.* Therefore, a Blackamoor is white. Here is a palpable Breach of the ſixth Rule of Syllogiſm.

6. The Fallacy *Ignorationis Elenchi.* An *Elenchus* is, A Syllogiſm that confutes the Opponent. Therefore he falls into this Fallacy, who thinks he confutes his Opponent, without obſerving the Rules of Contradiction.

7. The Fallacy of *begging the Queſtion,* that is, taking for granted the very Thing which ought to be proved. This is done, 1. When we attempt to prove a Thing by itſelf; or, 2. By a ſynonimous Word; or, 3. By ſomething equally unknown; or, 4. By ſomething more unknown; or, 5. By arguing in a Circle: As in the famous Argument of the Papiſts, who prove the Scriptures from the Authority of the Church, and the Church from the Authority of the Scriptures.

8. The Fallacy of *ſeveral Queſtions:* As, Are *Honey* and *Gall* ſweet? It is ſolved, by anſwering to each Branch diſtinctly.

Many more Fallacies than theſe might be reckoned up. For there are as many Fallacies, as there are Ways of breaking any of the Rules of Syllogiſm without being obſerved. But one who is thoroughly acquainted with thoſe Rules, will eaſily detect them all.

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CHAP. III.

Of METHOD.

SECT. I.

METHOD is, Such a Diſpoſition of the Parts of any Art or Science, that the whole may be more eaſily learned.

It is twofold, 1. *Method of Invention*, which finds out the Rules of an Art or Science; 2. *Method of Teaching*, which delivers them. The former proceeds from ſenſible and particular Things, to intelligible and univerſal; the latter, from intelligible and univerſal Things, to ſenſible and particular.

Method of Teaching is either *perfect* or *imperfect*. The former is either, 1. *Univerſal*, by which a whole Art or Science, or 2. *Particular*, by which a Part of it only is taught. Both are either, 1. *Synthetical*, which is uſed in Sciences, and beginning with the Subject of a Science, treats of its Principles and Affections, and then of its ſeveral Species, 'till from the higheſt Genus it deſcends to loweſt Species: Or, 2. *Analytical*, which is of Uſe in Arts; and beginning with the End or Deſign of an Art, next explains, the Subject of it, and laſtly, the Means conducive to that End.

The general Rules of Method are theſe:

In delivering an Art or Science, 1. Let Nothing be wanting or redundant: 2. Let all the Parts be conſiſtent with each other: 3. Let Nothing be treated of, which is not homogeneous to the End of the Art, or the Subject of the Science: 4. Let the Parts be connected by eaſy Tranſitions: 5. Let that precede, without which, the Things that follow cannot be underſtood; but which itſelf cannot be underſtood without them.

The particular Rules are theſe: 1. The Unity of a Science depends on the Unity of its Subject; the Unity of an Art, on the Unity of its End. 2. Let the more general Parts precede the leſs general.

The *imperfect* Method is arbitrary and popular; being no other than the Method of Prudence or Common Senſe.

SECT. II.

Mathematicians in all their Writings follow this Method, 1. They fix the Meaning of their Words, defining their Terms, each in their Place, and make it an invariable Rule, never afterwards to uſe any Term, but in the Senſe to which it is limitted by that Definition: 2. They lay down the Axioms which there will be Occaſion to uſe in the Courſe of their Work: 3. They add their *Poſtulata*, which alſo they demand to be granted, as being evident of themſelves: 4. They then demonſtrate their Propoſitions, in order, and as far as may be, affirmatively: Contenting themſelves with this Rule, That whatſoever they have to prove, they take Care to prove it from ſome of the Truths, which have been granted or proved before.

If the ſame Method cannot be ſtrictly obſerved in other Sciences, yet doubtleſs it may be imitated. And the nearer any Method approaches to this, the more perfect and uſeful it is.

APPENDIX.

Of the Manner of uſing LOGIC.

Extracted from Biſhop SANDERSON.

SECT. I.

Of Treating on a ſimple Theme.

WE may uſe the Rules of Logic in treating either on a ſimple Theme, or a Problem or Propoſition.

In treating logically on a ſimple Term, we are to explain both the *Name* and the *Thing*. And,

I. The *Name*, by 1. Pointing out the Ambiguity of the Term (if there be any), recounting its various Meanings, and fixing on that particular Meaning in which we at preſent take it: 2. Shewing its various Apellations both in our own, and in other Tongues: 3. Obſerving whence it is derived, with the more remarkable Words of the ſame Derivation. Not that all this is neceſſary to be done, at all Times, and on every Theme: But there is Need of Judgment and Choice, that thoſe

Particulars only may be noted, which conduce to the Explication of the Thing.

II. The *Thing* is explained, both by *aſſigning* its *Attributes*, and *diſtributing* or dividing it into its *Parts*. The Attributes are either *eſſential* or *non-eſſential*. By *eſſential* we underſtand, not only thoſe which properly conſtitute its Eſſence, the *Genus* and *Difference*, but alſo the *Properties* of Subſtances, the *Subjects* and *Objects* of Accidents, with the *efficient* and *final Cauſes* of both.

The *Genus* ſhould be aſſigned in the firſt Place, and that the *neareſt* which can be found, tho' premiſing, if Occaſion be, thoſe which are more *remote*. The *Difference* comes next; the Want of which is ſupplied, and the Nature more fully explained by *Properties*. And here may be added, the *efficient*, *principal*, *impulſive* and *inſtrumental* Cauſes, with the remote or proximate *Ends*. Here alſo in treating on an Accident may be ſubjoined, its proper *Subject* and adequate *Object*. But theſe more or leſs, as Need ſhall require; which are to be cloſed with a compleat *eſſential Definition* of the Thing.

III. The Theme is next to be *diſtributed* into its ſeveral *Species* or Parts, juſt to name which is generally ſufficient. From Diſtribution we proceed to the *non-eſſential Attributes*, whether *Effects*, *Cognates* or *Oppoſites*.

IV. Such *Effects* as are trivial or commonly known may either be juſt mentioned or paſſed over in Silence. Thoſe which are more noble, and leſs commonly known, may be ranged under proper Heads. This is alſo the Place for citing *Examples*.

Cognate Words are thoſe which are compared with the Theme as agreeing with it: *Oppoſite*, as differing from it. A Theme is explained by comparing it with its *Cognates*, when Things are mentioned which are in ſome Reſpects the ſame or like it, and it is ſhewn wherein that Sameneſs or Likeneſs lies, and alſo wherein the Unlikeneſs or Difference between them.

We in the laſt Place compare the Theme with its *Oppoſites*; for even Oppoſites caſt Light upon each other. There are four Species of theſe; but the *Contradictory* is uſually too vague and indefinitive to be of any Service: And the *relative Oppoſite* has been mentioned before, among the eſſential Attributes. Therefore the *privative* and *contrary* Oppoſites only, have Place here, and very properly cloſe the Treatiſe.

To give an Inſtance of this. Suppoſe the ſimple Theme to be treated of be ENVY.

I am, I. *Firſt*, To conſider the *Name*; and here I obſerve,

1. It may *mean* either actively or paſſively: As, "He is full of Envy;" that is, He envies others. "A rich Man is much expoſed to Envy;" that is, to be envied by others. We here take it in the former Senſe.

2. This is in *Latin* termed *Invidia*, a Word which has been borrowed by many modern Languages. The *Romans* alſo termed it *Livor*.

3. The Word *Invidia* is ſuppoſed to be *derived* from two *Latin* Words, that imply the *looking much* upon another, which the Envious are apt to do: The Word *Livor* from the *livid* Complexion which uſually attends an envious Temper.

There are two Words of the ſame Derivation, which are frequently confounded with each other, namely, *Invidious* and *Envious*; and yet the Signification of the one is widely different from that of the other. An *envious* Man, is one who is under the Power of Envy: An *invidious Office*, one that is apt to raiſe Envy or Diſlike.

II. In explaining the *Thing*, I obſerve, *firſt*, The *eſſential Attributes*: As, The *Genus*: To premiſe the more *remote*; it is a Paſſion, a Sort of Grief: But the *neareſt Genus* is, A vitious Grief.

I next obſerve, The *Difference*, taken

1. From the *Subject*, which are almoſt all Mankind; but chiefly thoſe who are ignorant of God, and conſequently unable to govern themſelves.

2. From the *Object*, which is twofold; of the *Thing*, or of the *Perſon*. The Thing envied, may be good of any Kind; apparent or real, uſeful or pleaſant; of Mind, Body or Fortune. The Perſon envied, may be any other Man, ſuperior, equal, or inferior: Only not at an immenſe Diſtance, either of Time, of Place, or of Condition. For few envy them that have been long dead, them that live in *China* or *Japan*; or thoſe who are above or beneath them beyond all Degrees of Compariſon.

3. From the *efficient* Cauſe. The *principal internal Cauſe in him that envies*, is Pride and inordinate Self-love. The *impulſive external* Cauſe may be various, either *in him that is envied*, if he be an Enemy, a Rival, a vain Boaſter; or *in* ſome *third Perſon*, as Contempt, Flattery, Whiſpering; any of which may ſtir up Envy.

We may therefore *define* Envy, either more briefly, A vitious Grief at the Good of another; or more fully, An evil Sadneſs of Mind, whereby a Man, from inordinate Self-love, is troubled at the Good which he ſees another enjoy, or foreſees he will enjoy, as he imagines it will leſſen or obſcure his own Excellency.

III. There are three *Species* of Envy, each worſe than the preceding: The firſt, When a Man is pained at another's enjoying ſome Good (in *Kind* or *Degree)* which he cannot himſelf attain: The ſecond, When a Man is pained at another's having what he himſelf has, but wants to have alone: Both theſe are exemplified in *Cæſar*, who would bear no Superior, and *Pompey*, who would bear no Equal. The third, is, When a Man cannot or will not enjoy his own Good, leaſt another ſhould enjoy it with him. It is well known, how many in the Learned World are infected with this evil Diſeaſe.

IV. The *Effects* of Envy are three, 1. It torments the Mind continually, and ſpreads Inquietude thro' the whole Life. 2. It waſtes even the bodily Strength, and drinks up the Spirits. A moſt juſt Evil, which is at once a Sin and a Puniſhment, and not leſs a Scourge than it is a Vice. 3. It incites a Man to all Manner of Wickedneſs; Detraction, Calumny, Strife, Murder.

Its moſt remarkable *Cognates* are, 1. *Hatred*, which agrees with *Envy* in its *Subject*; for he who envies another, cannot but hate him; and in its *efficient*, *internal Cauſe*, which in both is Pride and blind Self-love. 2. *Rejoicing in Evil:* This alſo agrees with Envy both in its Subject, (for he that grieves at another's Happineſs, cannot but rejoice in his Miſery) and in its *efficient Cauſe.*

And yet Hatred differs from Envy, 1. In the *Thing* hated or envied. For Good only is envied; but either Good or Evil may be hated. 2. In the *Perſon.* For we envy Men only, not GOD; and not ourſelves, but others: But we may hate, both other Men, and ourſelves; both other Creatures, and GOD Himſelf.

Rejoicing in Evil differs likewiſe from Envy, 1. In the *Genus:* For the Genus of the latter is Sorrow, of the former Joy. 2. In the *Object*, which in the one is *Evil*, in the other *Good.*

The grand *Oppoſite* to Envy is *Benevolence*, a tender Goodwill to all Men, which conſtrains us to wiſh well to all, and ſeriouſly to rejoice in all the Good that befalls them.

SECT. II.

Of treating on a Problem.

A *Problem* is, A Propoſition to be proved. It is ſometimes fully propoſed, whether poſitively, as, "*Logic is an Art,*" which is called a *Theſis*; or interrogatively, as, "*Is Logic an Art?*" Sometimes imperfectly, when the Subject only is mentioned, the Predicate being left in Queſtion, as, "*Of the Genus of Logic.*"

In a regular Treatiſe on a Problem there are three Parts, The ſtating the Queſtion, proving the Truth, and anſwering Objections. To which may be premiſed, The Introduction, concerning the Importance of the Queſtion, and the Occaſion of its being firſt diſputed; and the Concluſion, containing a Recapitulation of the whole, with the Corollaries ariſing therefrom.

I. In the Introduction may be ſhewn, that the Point in Debate, is not of little or no Moment, but either apparently of the higheſt Concern, or if not ſo important in itſelf, yet abſolutely neceſſary to be underſtood, in order to underſtand or explain thoſe which are confeſſedly of the higheſt Moment. Next ſhould be pointed out the Occaſion of the Doubt, and the Origin of the Error; what gave the firſt Riſe to this Diſpute; and how the Miſtake began and increaſed. But this muſt be done nakedly and ſimply, in a logical, not rhetorical Manner.

II. After a ſhort Preface, the Problem is not immediately to be proved, (unleſs where the Terms are quite clear, and the Point little controverted) but firſt the Terms of the Queſtion are to be explained, both the Subject and the Predicate. The various Senſes of theſe ſhould be obſerved, and the Definitions given, particularly of the Predicate. We then proceed to explain the true State of the Controverſy, by ſhewing what is granted on each Side, and what diſputed. For in every Controverſy, there is

Something wherein both Parties agree, and Something wherein they differ. In reciting the Points wherein we and our Opponents agree, we may add, if Need be, a ſhort Explanation or Proof of them: And then ſhew, wherein the proper Difference, the very Point of Controverſy, lies. If this be accurately ſhewn, the Buſineſs is in a Manner done; for it is ſcarce credible, how much Light this throws both on the Proof of the Truth, and the anſwering Objections.

III. In *proving the Truth*, if it be a plain ſimple Problem, it may ſuffice briefly to propoſe our Judgment in a ſingle affirmative or negative Theſis, and to confirm it by a few well-choſe Arguments. But if it be more complex, it will be expedient to comprize our Defence of it in ſeveral Propoſitions; beginning with thoſe wherein we remove the Opinions of others, and then going on to eſtabliſh our own; after every Propoſition placing the Arguments by which it is confirmed. But it does not ſuffice, barely to mention theſe; they are alſo to be ſtrongly preſſed and defended, and the Evaſions and Cavils of all Adverſaries, to be examined and overturned.

IV. Next follows the *anſwering of Objections.* Theſe may either be ſubjoined to the ſeveral Opinions of our Opponents, and ſo anſwered ſeverally; or all placed together, after we have proved the Point in Queſtion, and ſo anſwered all together.

In order to do this effectually, we ſhould obſerve, *firſt*, Is not the *Concluſion* advanced againſt me, wide of the Mark? Frequently the Objection may be allowed, and it does not overturn any Concluſion, which we have advanced. Nay, ſometimes it may be retorted, as proving juſt the contrary of what it was intended for.

If the Concluſion do really contradict any of ours, we are, *ſecondly*, to examine the *Form* of the Argument, according to the general and particular Rules of Syllogiſm; and to point out that Rule againſt which it offends.

If the *Form* be unexceptionable, it remains, *thirdly*, to conſider the *Matter* of the Objection from the *Premiſſes*. And it will generally be found, that either one of the Premiſſes is *falſe*, (or at leaſt, *not ſufficiently proved)* or that there is a latent *Ambiguity* in the Subject, the Predicate, or the Medium. In this Caſe, we are to fix upon that Term, and ſhew the Ambiguity of it.

V. We may cloſe the whole by repeating the Sum of what has been proved; unleſs when ſome uſeful Obſervations or Corollaries, either directly, or by eaſy Conſequence, follow from the Concluſions before eſtabliſhed. Theſe we are not to prove again, but briefly and nakedly to ſet them down, as naturally deducible from thoſe Propoſitions which have been proved before.

The Sermon on the Means of Grace, *in the firſt Volume of* Mr. Weſley's *Sermons, is a Treatiſe of this Kind.*—— *The Sermon on* Enthuſiaſm, *in the third Volume, is another Example of a ſimple Theme.*

FINIS.

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ERRATA.

Page 32. Line 9 from the Bottom, before the Words *loweſt Species*; inſert *the*.

Page 33. Line 4. dele *not*.

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